

# Work Order ID 53650

November 11, 2009 3:02:32 PM



Page 1

Item ID: D2886-1 \* *PA. 12.02*  
 Revision ID: *AB*  
 Item Name: Cable Guard  
 Start Date: 11/13/09 Start Qty: 2.00  
 Required Date: 11/20/09 Req'd Qty: 2.00  
 Reference:

Accept



Setup Start



Stop



Cust Item ID:

Customer:



Approvals: Process Plan: *W* Date: Tooling: Date:  
 QC: Date: SPC (Y/N): Date:

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
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D2886	Rev <i>AB</i>
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100		0.00
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Waterjet

Memo

0.00

FLOW CNC Waterjet

CUT BLANKS AS PER FILE D2886-1

*B 9-11-06*

*3*

140		0.00
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HAAS 1

HAAS CNC VERTICAL MACHINING #1

Memo

0.00

HAAS CNC vertical machine #1

Machine as per folio D2886-1

*H.A 09/12/01*

*Z O*

150		0.00
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QC

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

Quality Control

*H.A 09/12/02*

*Z O*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 53650

November 11, 2009 3:02:33 PM



Page 2

Item ID: D2886-1

Accept



Setup Start



Revision ID: A

Stop



Item Name: Cable Guard

Start Date: 11/13/09 Start Qty: 2.00



Cust Item ID:

Required Date: 11/20/09 Req'd Qty: 2.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

160

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

MF 09/12/02

2

0

Quality Control

190

Identify as per dwg & Stock Location: \_\_\_\_\_

0.00



Packaging

Memo

0.00

Packaging

alra la so 2

200

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

09/12/02

MF 09-12-02

POSITIVE RECALL

EFFECTIVE

AUTH

RELEASED

DATE

09.12.02

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Page 1

November 11, 2009 3:02:31 PM

Work Order ID: 53650



Parent Item: D2886-1RevA



Parent Item Name: Cable Guard

Start Date: 11/13/09

Required Date: 11/20/09

Comments:

Start Qty: 2.00

Required Qty: 2.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
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MUHMWB1750X1000  
X4800

Purchased

No

100

sf

0.0000

0.7017



B 9-11-06

UHMW 1.75x1.00x48.00

108762

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b> 53 650
<b>Description:</b> GUARD		<b>Part Number:</b> D2886-1
<b>Inspection Dwg:</b> D2886 Rev: B		<b>Page 1 of 2</b>

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

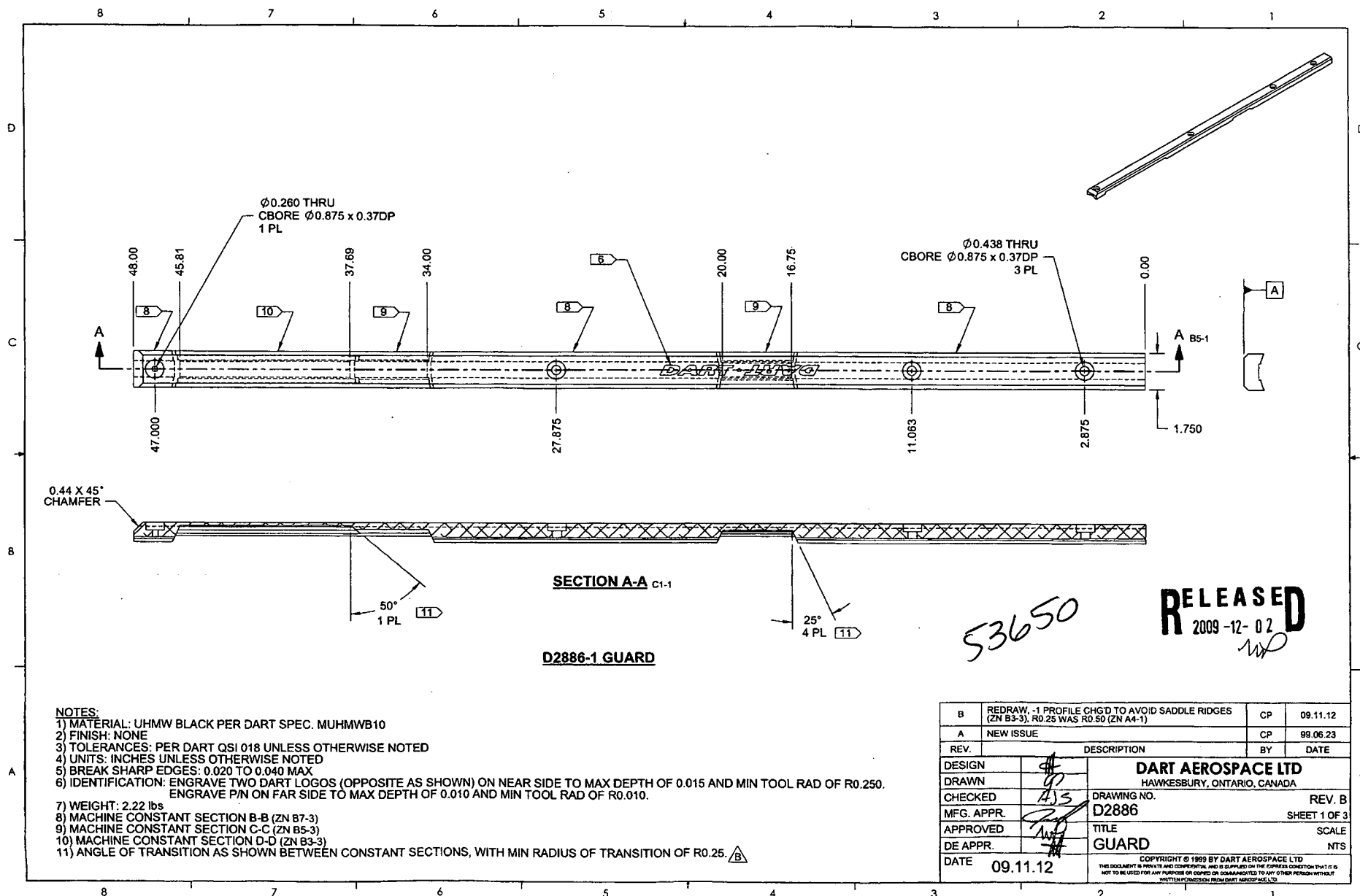
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
48.00	$\pm .030$	48.00	—			
45.81	$\pm .030$	45.81	—			
37.69	$\pm .030$	37.69	—			
34.00	$\pm .030$	34.00	—			
20.00	$\pm .030$	20.00	—			
16.75	$\pm .030$	16.75	—			
Ø.438	$\pm .006$ $\pm .001$	Ø.439	—			
Ø.875 X .375	$\pm .010$ $\pm .001$ X $\pm .030$	Ø.880 X .372	—			
47.00	$\pm .030$	47.00	—			
27.875	$\pm .010$	27.875	—			
11.063	$\pm .010$	11.063	—			
2.875	$\pm .010$	2.878	—			
1.75	$\pm .030$	1.745	—			
50°	$\pm 1/2^\circ$	50°	—			
25°	$\pm 1/2^\circ$	25°	—			
.20 X 45° CF	$\pm .030$ X $\pm 1/2^\circ$	.215 X 45°	—			
.78	$\pm .030$	.781	—			
.70	$\pm .030$	.698	—			
.79	$\pm .030$	.791	—			
.95	$\pm .030$	.950	—			
R2.00	$\pm .030$	R2.00	—			
R.66	$\pm .030$	R.66	—			
.33	$\pm .030$	.327	—			

<b>Measured by:</b> H.A	<b>Audited by:</b> AMR	<b>Prototype Approval:</b>	N/A
<b>Date:</b> 09/12/02	<b>Date:</b> 09/12/02	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	







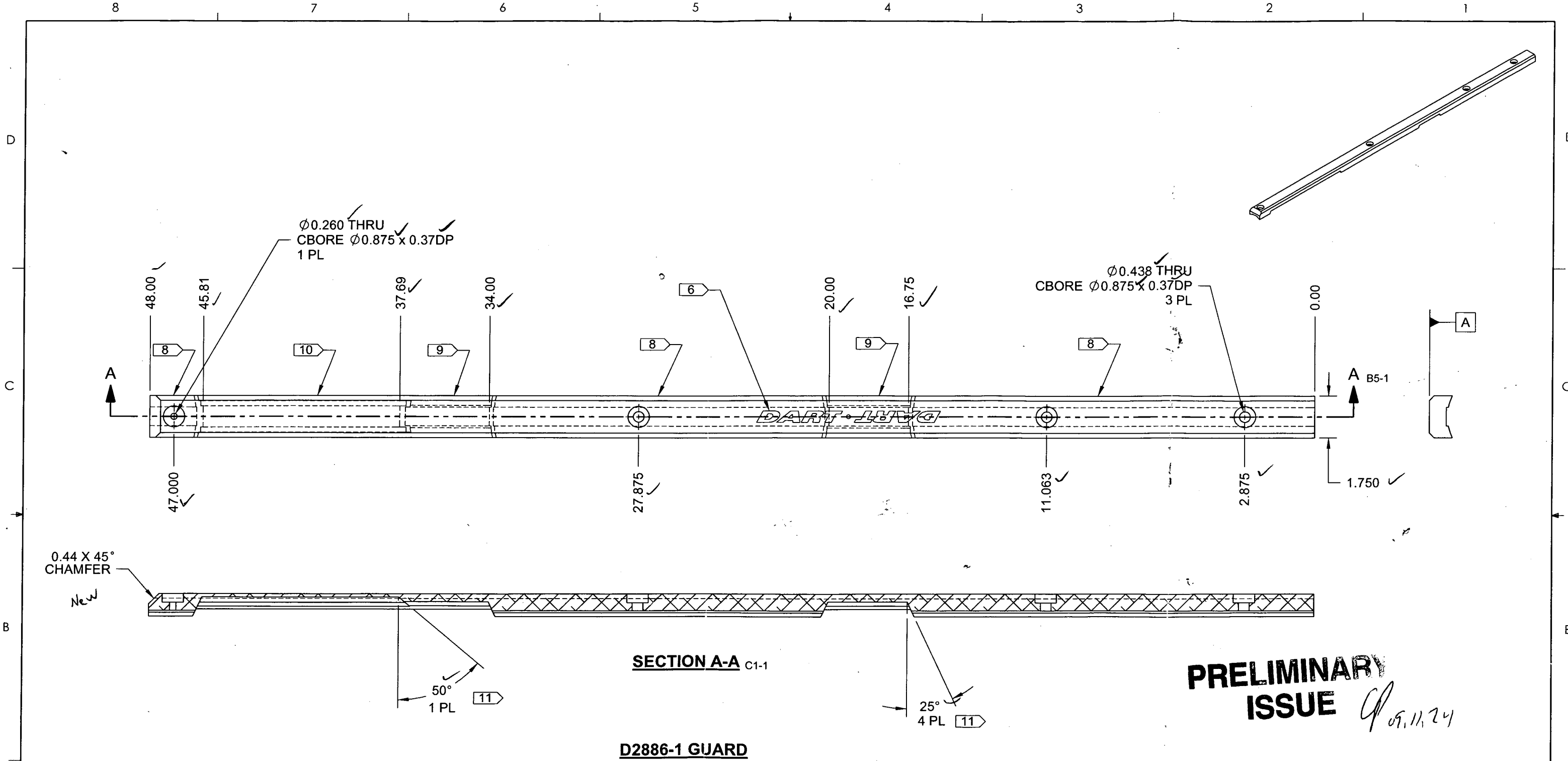
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_


Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



- NOTES:
- 1) MATERIAL: UHMW BLACK PER DART SPEC. MUHMBW10
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.020 TO 0.040 MAX
  - 6) IDENTIFICATION: ENGRAVE TWO DART LOGOS (OPPOSITE AS SHOWN) ON NEAR SIDE TO MAX DEPTH OF 0.015 AND MIN TOOL RAD OF R0.250. ENGRAVE P/N ON FAR SIDE TO MAX DEPTH OF 0.010 AND MIN TOOL RAD OF R0.010.
  - 7) WEIGHT: 2.22 lbs
  - 8) MACHINE CONSTANT SECTION B-B (ZN B7-3)
  - 9) MACHINE CONSTANT SECTION C-C (ZN B5-3)
  - 10) MACHINE CONSTANT SECTION D-D (ZN B3-3)
  - 11) ANGLE OF TRANSITION AS SHOWN BETWEEN CONSTANT SECTIONS, WITH MIN RADIUS OF TRANSITION OF R0.50.

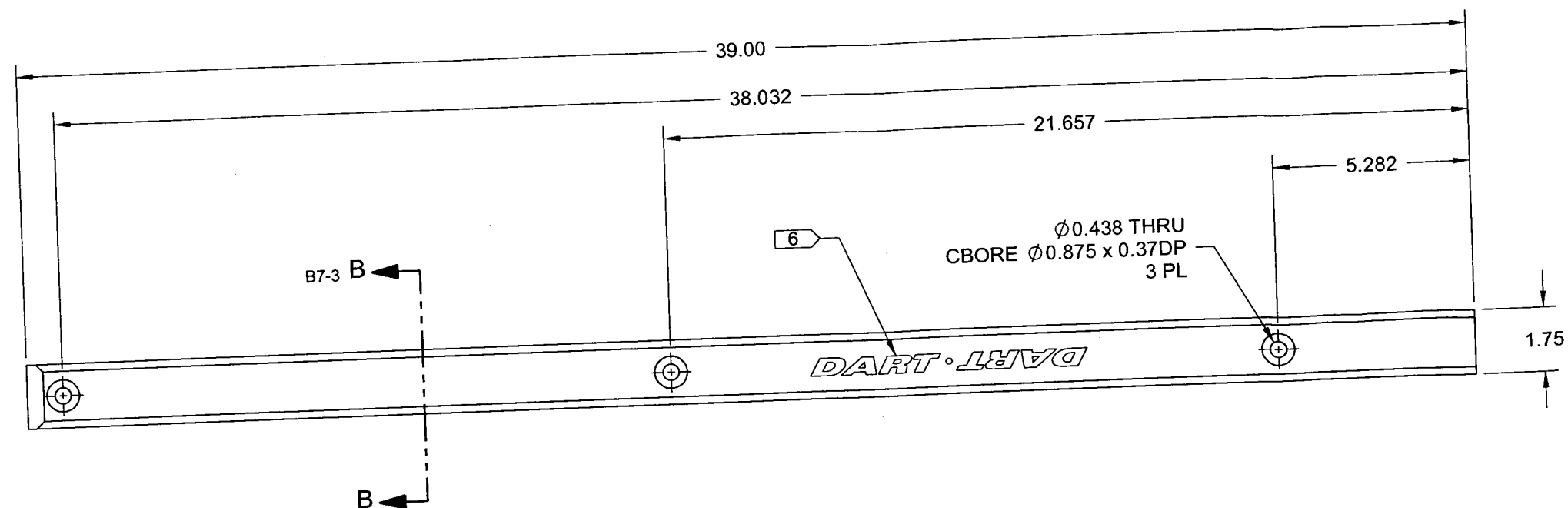
B	REDRAW, -1 PROFILE CHG'D TO AVOID SADDLE RIDGES (ZN B3-3)	CP	09.11.12
A	NEW ISSUE	CP	99.06.23
REV.	DESCRIPTION	BY	DATE
DESIGN		<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN			
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D2886	SHEET 1 OF 3
APPROVED		TITLE	SCALE
DE APPR.	GUARD	NTS	
DATE	09.11.12	COPYRIGHT © 1999 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

D

C

B

A

0.44 X 45°  
CHAMFER

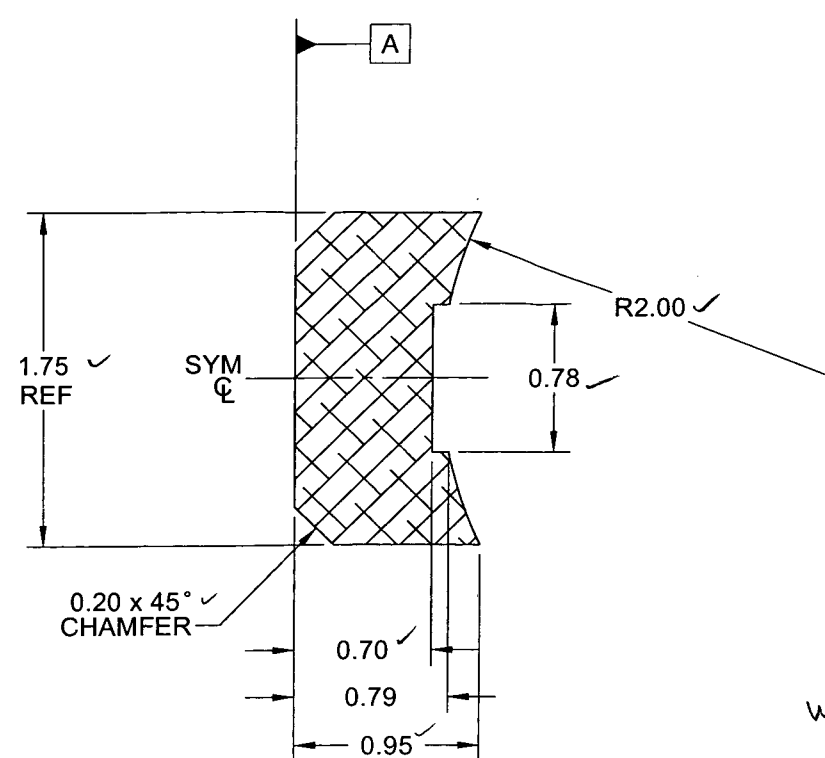
0.95 REF

**D2886-3 GUARD****PRELIMINARY  
ISSUE****NOTES:**

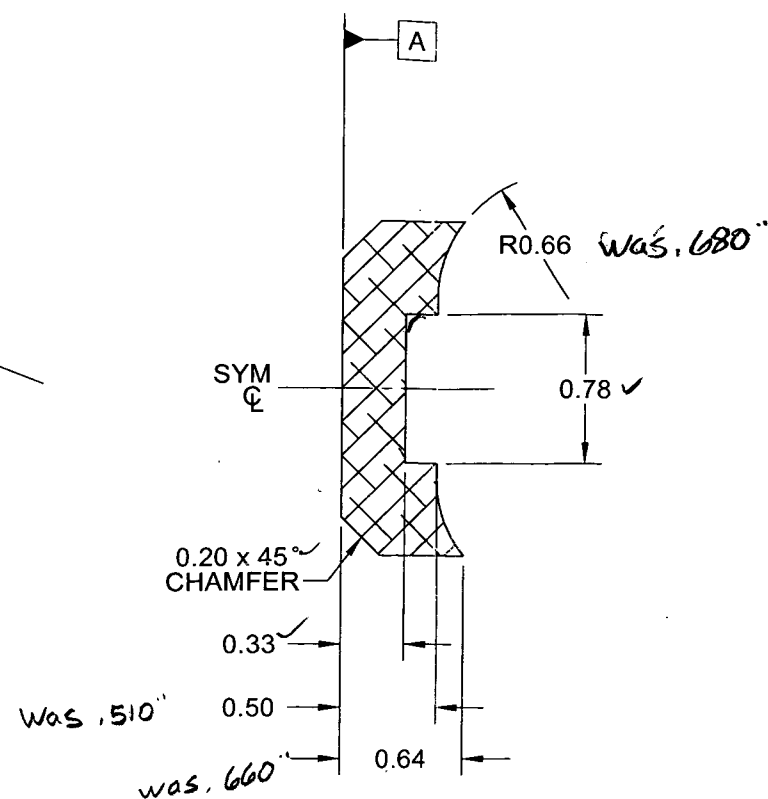
- 1) MATERIAL: UHMW BLACK PER DART SPEC. MUHMB10
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.020 TO 0.040 MAX
- 6) IDENTIFICATION: ENGRAVE TWO DART LOGOS (OPPOSITE AS SHOWN) ON NEAR SIDE TO MAX DEPTH OF 0.015 AND MIN TOOL RAD OF R0.250.  
ENGRAVE P/N ON FAR SIDE TO MAX DEPTH OF 0.010 AND MIN TOOL RAD OF R0.010.
- 7) WEIGHT: 2.20 lbs

DESIGN		<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA
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CHECKED		
MFG. APPR.		
APPROVED		
DE APPR.		DRAWING NO. <b>D2886</b>
DATE	<b>09.11.12</b>	TITLE <b>GUARD</b>
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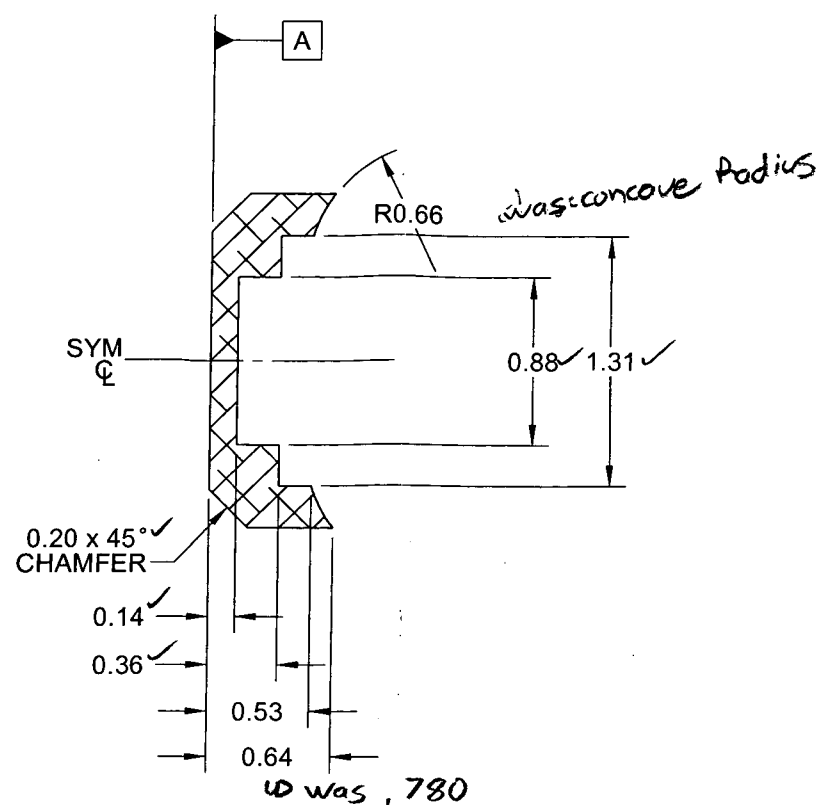
REV. B  
SHEET 2 OF 3  
SCALE  
NTS



**SECTION B-B** A7-1, C7-2  
SCALE 4X



**SECTION C-C** A7-1  
SCALE 4X



**SECTION D-D** A7-1  
SCALE 4X

**PRELIMINARY  
ISSUE** 06.11.24

DESIGN		<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	REV. B SHEET 3 OF 3
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CHECKED		DRAWING NO. <b>D2886</b>	TITLE <b>GUARD</b> SCALE NTS
MFG. APPR.			
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